

Canada, Ontario Water Branch

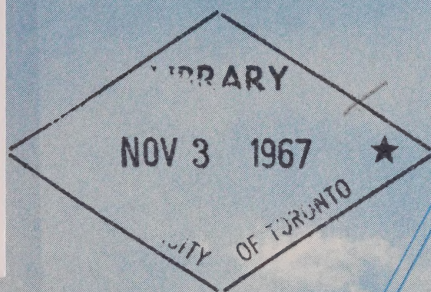
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MAP OF TRANSMISSION AND GENERATING FACILITIES

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ONTARIO



ELECTRIC POWER IN CANADA

1964





MAP OF
TRANSMISSION
AND
GENERATING
FACILITIES

Ontario

DEPARTMENT OF NORTHERN AFFAIRS AND
NATIONAL RESOURCES

WATER RESOURCES BRANCH



MAP OF
TRANSMISSION
AND
GENERATING
FACILITIES

Ontario

DEPARTMENT OF ENERGY AND ELECTRICITY

ROGER DUHAMEL, F.R.S.C.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1965

Cat. No. R32-865/3

HYDRO

No.	Development	River	Owner	Year Installed		Rated Head ft.	No. of Units	Turbines		Generators	
				First Unit	Latest Unit			Unit Capacity hp.	Total Capacity hp.	Unit Capacity kw.	Total Capacity kw.

Ontario

1	Sir Adam Beck-Niagara: Generating Station No. 1	Niagara	HEPCO	1922	1930	305	5	55,000		36,000	
						294	2	58,000		43,200	
						294	1	58,000		44,000	
						294	2	58,000	565,000	46,750	403,900
	Generating Station No. 2			1954	1958	292	16	105,000	1,680,000	76,475	1,223,600
	Pumping-Generating Station			1957	1958	85	6	46,000	276,000	29,450	176,700
2	Robert H. Saunders - St. Lawrence	St. Lawrence	HEPCO	1958	1959	81	16	75,000	1,200,000	57,000	912,000
3	Des Joachims	Ottawa	HEPCO	1950	1951	130	8	62,000	496,000	45,000	360,000
4	Abitibi Canyon	Abitibi	HEPCO	1933	1959	237	4	66,000		41,225	
							1	66,000	330,000	43,200	208,100
5	Otto Holden	Ottawa	HEPCO	1952	1953	77	4	35,000		25,650	
							4	33,000	272,000	25,650	205,200
6	Otter Rapids	Abitibi	HEPCO	1961	1963	107	4	60,000	240,000	43,700	174,800
7	Ontario Power	Niagara	HEPCO	1905	1919	-	3	11,700		7,500	
							4	11,700		8,770	
							7	13,400		8,775	
							1	20,000	195,700	13,500	132,505
8	Pine Portage	Nipigon	HEPCO	1950	1954	105	2	41,000		29,700	
							2	45,000	172,000	34,650	128,700
9	Chenau	Ottawa	HEPCO	1950	1951	40	8	21,000	168,000	15,300	122,400
10	Little Long	Mattagami	HEPCO	1963	1963	90	2	84,000	168,000	60,800	121,600
11	DeCew Falls No. 2	Welland Canal	HEPCO	1943	1947	280	2	75,000	150,000	57,600	115,200
12	Rankine	Niagara	CNPC	1904	1924	133	5	10,250		7,500	
							2	12,500		9,375	
							3	10,750		9,375	
							1	12,000	120,500	10,300	94,675
13	Toronto Power	Niagara	HEPCO	1906	1915	-	7	15,000		9,000	
							4	13,000	157,000	7,200	91,800
14	Chats Falls	Ottawa	HEPCO	1931	1931	53	4	28,000	112,000	22,325	89,300
15	Caribou Falls	English	HEPCO	1958	1958	58	3	34,000	102,000	25,650	76,950
16	Cameron Falls	Nipigon	HEPCO	1920	1958	72	2	12,500		9,540	
						72	4	12,500		8,480	
						73	1	25,000	100,000	19,000	72,000
17	Manitou Falls	English	HEPCO	1956	1958	54	5	18,500	92,500	14,400	72,000
18	Alexander	Nipigon	HEPCO	1930	1958	60	3	18,000		12,750	
						58	2	19,000	92,000	13,500	65,250
19	Whitedog Falls	Winnipeg	HEPCO	1958	1958	50	3	27,000	81,000	21,600	64,800
20	Stewartville	Madawaska	HEPCO	1948	1948	148	3	28,000	84,000	20,400	61,200
21	Smoky Falls	Mattagami	SFPPC	1928	1931	-	4	18,750	75,000	13,200	52,800
22	Silver Falls	Kaministiquia	HEPCO	1959	-	330	1	60,000	60,000	45,000	45,000
23	Geo. W. Rayner	Mississagi	HEPCO	1950	1950	210	2	29,000	58,000	21,150	42,300
24	Barrett Chute	Madawaska	HEPCO	1942	1942	150	2	28,000	56,000	20,400	40,800

No.	Development	River	Owner	Year Installed		Rated Head ft.	No. of Units	Turbines		Generators	
				First Unit	Latest Unit			Unit Capacity hp.	Total Capacity hp.	Unit Capacity kw.	Total Capacity kw.
25	Upper Falls	Montreal	GLPC	1937	1957	232	2	12,600 31,000	56,200	9,000 22,500	40,500
26	Aguasabon	Aguasabon	HEPCO	1948	1948	290	2	27,500	55,000	20,250	40,500
27	Red Rock Falls	Mississagi	HEPCO	1960	1961	92	2	26,500	53,000	20,250	40,500
28	Island Falls	Abitibi	APPC	1924	1925	65	4	12,000	48,000	9,600	38,400
29	DeCew Falls No. 1	Welland Canal	HEPCO	1901	1913	-	1	3,000		2,500	
							2	3,000		2,000	
							1	6,000		4,800	
							1	6,000		5,000	
							2	6,000		5,300	
							1	6,000		5,600	
							1	6,000	45,000	5,900	38,400
30	Kakabeka Falls	Kaministiquia	HEPCO	1906	1914	178	3	7,500 12,500	35,000	5,400 7,970	24,170
31	High Falls	Michipicoten	GLPC	1930	1950	147	2	11,000 13,200	35,200	6,750 9,675	23,175
32	Big Eddy	Spanish	HCL	1929	1929	90	3	9,400	28,200	7,200	21,600
33	Sault Ste. Marie	St. Mary	GLPC	1918	1931	18.5	24	900 2,400 2,200	31,000	650 1,440 1,600	21,520
34	Iroquois Falls	Abitibi Lake & Black River	APPC	1949	1949	43	1	1,800		1,200	
							1	1,800		1,280	
							1	2,200		1,200	
							6	2,200		1,280	
							5	2,500	31,500	2,025	21,485
35	Twin Falls	Abitibi	APPC	1921	1925	57.5	5	6,000	30,000	4,050	20,250
36	Gartshore Falls	Montreal	GLPC	1958	-	112	1	30,300	30,300	20,000	20,000
37	Hollingsworth Falls	Michipicoten	GLPC	1959	-	108	1	30,300	30,300	20,000	20,000
38	Ear Falls (Operated by HEPCO for the Province of Ontario)	English	PRO	1930	1948	36	1	5,000		4,000	
							1	5,000		3,825	
							2	7,500	25,000	5,400	18,625
39	Norman	Winnipeg (West Branch)	OMPP	1925	1925	20	3	3,400 3,400	17,000	3,300 3,712	17,324
40	Lower Falls	Montreal	GLPC	1938	1941	185	2	10,900	21,800	8,100	16,200
41	Espanola	Spanish	KVPC	1906	1946	60	4	1,600		1,250	
						64	1	10,000		7,500	
						60	1	2,300		1,750	
						60	1	2,900	21,600	1,500	15,750
42	Hogg	Montreal	GLPC	1964	-	78	1	21,750	21,750	15,000	15,000
43	Scott Falls	Michipicoten	GLPC	1952	1952	70	2	10,000	20,000	6,800	13,600
44	High Falls	Spanish	HCL	1905	1918	85	4	3,550 7,500	21,700	2,000 5,550	13,550
45	Fort Frances	Rainy	OMPP	1955	1955	28	8	2,000	16,000	1,600	12,800
46	Thorold	Welland Canal	STLSA	1932	1932	-	3	5,000	15,000	4,000	12,000
47	Wawatina Falls	Mattagami	HEPCO	1912	1918	125	2	3,450 4,000	14,900	2,500 3,375	11,750
48	Kenora	Winnipeg	OMPP	1923	1924	20	4	1,200 1,200	12,000	1,000 1,250	11,500
49	Healy Falls	Trent	HEPCO	1913	1919	73	2	5,600 5,600	16,800	3,750 3,000	10,500

ONTARIO (Cont'd)

HYDRO

No.	Development	River	Owner	Year Installed		Rated Head ft.	No. of Units	Turbines		Generators	
				First Unit	Latest Unit			Unit Capacity hp.	Total Capacity hp.	Unit Capacity kw.	Total Capacity kw.
50	McPhail Falls	Michipicoten	GLPC	1954	1954	48	2	7,500	15,000	5,000	10,000
51	Upper Notch	Montreal	HEPCO	1930	1930	48	2	6,500	13,000	4,800	9,600
52	Calm Lake	Seine	OMPP	1928	1928	82	2	6,500	13,000	4,675	9,350
53	Chaudière	Ottawa	EBEC	1909	1912	38	2	4,650		3,000	
							1	4,650	13,950	3,320	9,320
54	Crystal Falls	Sturgeon	HEPCO	1921	1921	33	4	2,600	10,400	2,020	8,080
55	Ranney Fall	Trent	HEPCO	1922	1926	-	1	1,000		720	
							2	5,000	11,000	3,600	7,920
56	Chaudière Falls No. 4	Ottawa	OHEC	1931	1931	38	2	5,400	10,800	3,960	7,920
57	Sturgeon Falls	Sturgeon	APPC	1902	1951	41	1	2,500		1,600	
							35	1	2,000	1,500	
							35	1	1,090	1,500	
							35	1	2,000	1,500	
							35	1	2,000	1,575	7,675
58	Big Eddy	Muskoka	HEPCO	1941	1941	38	2	5,280	10,560	3,825	7,650
59	Ragged Rapids	Muskoka	HEPCO	1938	1938	38	2	5,200	10,400	3,825	7,650
60	Sturgeon Falls	Seine	OMPP	1927	1927	62	2	5,000	10,000	3,825	7,650
61	Matabitchuan	Matabitchuan	HEPCO	1910	1924	305	4	3,300	13,200	1,690	6,760
62	Lower Sturgeon	Mattagami	HEPCO	1923	1923	42	2	4,000	8,000	3,200	6,400
63	Smooth Rock Falls	Mattagami	APPC	1916	1916	45	2	4,500	9,000	2,960	5,920
64	Peterborough	Otonabee	PHPC	1902	1950	27	1	2,300		1,500	
							1	2,550		1,875	
							1	2,140	6,990	1,750	5,125
65	Nairn	Spanish	HCL	1917	1917	30	2	2,000		1,500	
							1	2,600	6,600	1,875	4,875
66	Eugenia	Beaver	HEPCO	1915	1920	550	2	2,250		1,200	
							1	4,000	8,500	2,400	4,800
67	Meyersburg (Dam 8)	Trent	HEPCO	1924	1924	32	3	2,200	6,600	1,600	4,800
68	Chaudière Falls No. 2	Ottawa	OHEC	1909	1936	40	3	2,300	6,900	1,462	4,386
69	Coniston	Wanapitei	HEPCO	1905	1915	53	1	1,200		720	
							1	1,600		1,125	
							1	3,500	6,300	2,250	4,095
70	Stinson	Wanapitei	HEPCO	1925	1925	-	2	3,500	7,000	2,000	4,000
71	Calabogie	Madawaska	HEPCO	1917	1917	30	2	3,000	6,000	2,000	4,000
72	Big Chute	Severn	HEPCO	1911	1919	56	3	1,300		900	
							1	2,300	6,200	1,280	3,980
73	South Falls	South Muskoka	HEPCO	1916	1925	107	1	1,000		635	
							2	2,200	5,400	1,600	3,835
74	Wabagishik	Vermilion	HCL	1912	1935	70	1	2,700		1,500	
							1	2,700	5,400	2,130	3,630
75	Swift Rapids	Severn	OWLP	1917	1917	47	3	2,120	6,360	1,200	3,600
76	Minden	Gull	OWLP	1935	1935	70	2	2,600	5,200	1,800	3,600
77	Sandy Falls	Mattagami	HEPCO	1911	1916	32	2	1,200		950	
							34	1	2,500	1,595	3,495
78	Hagues Reach	Trent	HEPCO	1925	1925	22.5	3	1,600	4,800	1,120	3,360

ONTARIO (Cont'd)

HYDRO

No.	Development	River	Owner	Year Installed		Rated Head ft.	No. of Units	Turbines		Generators	
				First Unit	Latest Unit			Unit Capacity hp.	Total Capacity hp.	Unit Capacity kw.	Total Capacity kw.

ONTARIO (Cont'd)

79	Indian Chute	Montreal	HEPCO	1923	1924	45	2	2,250	4,500	1,620	3,240
80	Sidney	Trent	HEPCO	1911	1911	20	4	1,400	5,600	795	3,180
81	Seymour	Trent	HEPCO	1909	1911	23	4	1,100		600	
							1	1,100	5,500	750	3,150
82	Matthias	Muskoka	OWLP	1950	-	47	1	3,770	3,770	2,812	2,812
83	Hound Chute	Montreal	HEPCO	1910	1911	-	4	1,335	5,340	700	2,800
84	Spruce Falls	Kapuskasing	SFPPC	1923	-	30	1	2,500	2,500	2,750	2,750
85	Frankford	Trent	HEPCO	1913	1913	18	4	1,200	4,800	650	2,600
86	Jones Falls	Rideau Canal	GELW	1948	1950	65	1	250		180	
						58	2	1,037		800	
						58	1	1,500	3,824	800	2,580
87	Nassau	Otonabee	CGEC	1902	1926	16	1	2,000		1,500	
							2	700	3,400	480	2,460
88	McVittie	Wanapitei	HEPCO	1912	1912	42	2	1,800	3,600	1,125	2,250
89	High Falls	Mississippi	HEPCO	1920	1920	82	3	1,240	3,720	700	2,100
90	Nipissing	South	HEPCO	1909	1924	-	1	1,250		1,000	
							1	1,250	2,500	1,050	2,050
91	Lakefield	Otonabee	HEPCO	1928	-	16	1	3,100	3,100	2,000	2,000
92	Fountain Falls	Montreal	HEPCO	1914	1914	30	2	1,500	3,000	1,000	2,000
93	Rideau Falls	Rideau	NRC	1909	1909	47	2	1,500	3,000	1,000	2,000
94	Sill- Island	Trent	HEPCO	1926	1926	14	1	1,000		960	
							1	1,000	2,000	1,020	1,980
95	Crow Bay	Trent Canal	CPUC	1909	1911	-	1	1,470		990	
							1	1,900	3,370	900	1,890
96	Auburn	Otonabee	HEPCO	1911	1912	18	3	950	2,850	625	1,875
97	Current River	Current	PAPUC	1902	1906	80	2	450		350	
							1	1,200	2,100	1,100	1,800
98	Eagle	Eagle	DPC	1928	-	37	1	2,000	2,000	1,760	1,760
99	Trethewey Falls	South Muskoka	HEPCO	1929	-	35	1	2,300	2,300	1,600	1,600

Total capacity of plants under 1,500 kw.

32,171

21,839


Total capacity of turbines connected directly to mechanical equipment

27,375

Total (all plants)

8,218,320

5,936,871



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THERMAL

THERMAL

No.	Station	Location	Owner	Year Installed		Fuel	Type of Prime Mover	Generators		
				First Unit	Latest Unit			No.	Unit Capacity kw.	Total Capacity kw.
1	Richard L. Hearn	Toronto	HEPCO	1951	1961	Coal	S	4 4	100,000 200,000	1,200,000
2	Lakeview	Toronto	HEPCO	1961	1964	Coal	S	3	300,000	900,000
3	J. Clark Keith	Windsor	HEPCO	1951	1953	Coal	S	4	66,000	264,000
4	Thunder Bay	Fort William	HEPCO	1963	-	Coal	S	1	100,000	100,000
5	Windsor	Windsor	FMCC	1936	1952	Coal	S	1 1 2	10,000 4,000 25,000	64,000
6	Sarnia	Sarnia	PC	1943	1956	Coal, oil	S	1 1 1 1	10,000 5,000 4,000 13,280	32,280
7	Fort William	Fort William	GLPC	1928		Gas, coal, wood- waste	S	1 1 1	4,000 5,000 17,100	26,100
8	Sault Ste. Marie	Sault Ste. Marie	ASC	1963	1963	Gas, oil coal	S	2	12,500	25,000
9	Kapuskasing	Kapuskasing	SFPPC	1928	1958	Coal, gas, wood- waste	S	2 1 1	650 12,500 9,100	22,900
10	Nuclear Power De- monstration Unit	Rolphton	AECL	1962	-	uranium dioxide	S	1	20,000	20,000
11	Marathon	Marathon	MCC	1946	1948	Coal, oil	S	1 2	7,500 4,000	15,500
12	Hamilton	Hamilton	SCC	1948	1959	Coke- oven gas, oil	S	1 1	4,000 6,000	10,000
13	Amherstburg	Amherstburg	BRMC	1918	1957	Coal	S	1 2 1 1	2,500 600 2,000 3,750	9,450
14	Thorold	Thorold	OPC	1937	1937	Coal, gas	S	2	4,000	8,000
15	Dryden	Dryden	DPC	1954	-	Coal, gas	S	1	6,000	6,000
16	Walkerville	Walkerville	HWS	1924	1955	Coal	S	2 1 1	1,000 2,500 625	5,125
17	Sault Ste. Marie	Sault Ste. Marie	APPC	1927	-	Coal, gas, wood- waste	S	1	3,500	3,500
18	Strathcona	Strathcona	SP	1955	1955	Coal	S	2	1,655	3,310
19	Wallaceburg	Wallaceburg	CDSC	1950	1953	Coal, oil	S	2	1,500	3,000
20	Chatham	Chatham	CDSC	1946	1946	Coal	S	2	1,500	3,000
21	Fort Frances	Fort Frances	OMPP	1927	-	Coal	S	1	3,000	3,000
22	Blind River	Blind River	MFLC	1927	1927	Wood- waste	S	1 1	750 2,000	2,750

THERMAL

No.	Station	Location	Owner	Year Installed		Fuel	Type of Prime Mover	Generators		
				First Unit	Latest Unit			No.	Unit Capacity kw.	Total Capacity kw.

ONTARIO (Cont'd)

23	Station No. 6	Gananoque	GELW	1959	1959	Gas	IC	2	1,360	2,720
24	Toronto	Toronto	CDSC	1959	-	Coal, gas, oil	S	1	2,500	2,500
25	Toronto	Toronto	CCCC	1937	-	Coal, oil	S	1	2,500	2,500
26	Ottawa	Ottawa	EBEC	1923	-	Coal	S	1	2,500	2,500
27	Port Arthur	Port Arthur	APPC	1928	-	Coal, wood-waste, gas	S	1	2,500	2,500
28	New Toronto	New Toronto	GTR	1940	-	Coal, oil	S	1	2,500	2,500
29	Pembroke	Pembroke	PELC	1929	1949	Oil	IC	1 2	865 670	2,205
30	Orillia	Orillia	OWLP	1947	1948	Oil	IC	1 1	1,000 1,136	2,136
31	Peterborough	Peterborough	CGEC	1930	1949	Coal	S	1	2,000	2,000
32	Espanola	Espanola	KVPC	1947	1951	Coal	S	1	2,000	2,000

Total capacity of plants 1,500 kw. and over (not listed above)

98,050

Total capacity of plants under 1,500 kw.

16,070

Total (all plants)

2,864,596

IC - Internal Combustion, S - Steam

OWNER CODE INDEX

CODE	OWNER
AECL.....	Atomic Energy of Canada Limited
APPC.....	Abitibi Power and Paper Company Limited
ASC.....	Algoma Steel Corporation Limited
BRMC	Brunner Mond Canada Limited
CCCC.....	Continental Can Company of Canada Limited
CDSC.....	Canada and Dominion Sugar Company Limited
CGEC.....	Canadian General Electric Company Limited
CNPC.....	Canadian Niagara Power Company Limited
CPUC.....	Campbellford Public Utilities Commission
DPC.....	Dryden Paper Company Limited
EBEC.....	E. B. Eddy Company
FMCC	Ford Motor Company of Canada Limited
GELW	Gananoque Electric Light and Water Supply Co. Ltd.
GLPC.....	Great Lakes Power Corporation Limited
GTR.....	Goodyear Tire and Rubber Company Limited
HCL.....	Huronian Company Limited
HEPCO.....	Hydro-Electric Power Commission of Ontario
HWS.....	Hiram Walker and Sons Limited
KVPC.....	Kalamazoo Vegetable Parchment Company Limited
MCC	Marathon Corporation of Canada
MFCLC	McFadden Lumber Co. (Domtar)
NRC.....	National Research Council, Government of Canada
OHEC.....	Ottawa Hydro-Electric Commission
OMPP	Ontario-Minnesota Pulp and Paper Company Limited
OPC.....	Ontario Paper Company
OWLP	Orillia Water Light and Power Commission
PAPUC	Port Arthur Public Utilities Commission
PC.....	Polymer Corporation
PELC.....	Pembroke Electric Light Company Limited
PHPC.....	Peterborough Hydraulic Power Company
PRO.....	Province of Ontario
SCC.....	Steel Company of Canada Limited
SFPPC.....	Spruce Falls Power and Paper Company
SP.....	Strathcona Paper Company Limited
STLSA	St. Lawrence Seaway Authority



